

AMENDMENTS TO THE DRAWINGS

The attached drawing sheets include changes to Fig. 7.

Attachment: 1 Replacement Sheet, 1 New sheet

REMARKS

The applicants note with appreciation the acknowledgement of the claim for priority under section 119 and the notice that all of the certified copies of the priority documents have been received.

Claims 1, 3 – 11 and 13 – 32 are pending. Claims 2 and 12 have been canceled. Claim 14 is indicated as allowable if rewritten. The applicants respectfully request reconsideration and allowance of this application in view of the above amendments and the following remarks.

Dependent claims 14 was objected to, but indicated as being allowable if rewritten in independent form. Claim 14 has been re-written in independent form as new claim 32 to include claim 1 and to overcome the rejection under 35 USC 112, second paragraph, and it is respectfully submitted that claim 32 is allowable. The applicants have rewritten claim 14 in independent form as claim 32 since the office action indicated that it would be allowable if so re-written. However, the applicants do not concede that other features in the claims are found in the prior art. The applicants wish to clarify for the record, if necessary, that the claims have been amended to expedite prosecution. Any narrowing amendment to the claims in the present Amendment is not to be construed as a surrender of any subject matter between the original claims and the present claims; rather this is merely an attempt at providing one or more definitions of what the applicants believe to be suitable patent protection and the intended scope of protection. Therefore, no estoppel should be presumed, and the applicants' claims are intended to include a scope of protection under the Doctrine of Equivalents.

The drawings are objected to with respect to how block S118 fits into Figure 2. The examiner suggests an entire block diagram for the figure including block S18. Accordingly, sheet 5 of the drawings, with original Fig. 7 and Fig. 8, is replaced by the attached replacement

sheet 5 and new sheet 6, with amended Fig. 7 and original Fig. 8. More specifically, Fig. 7, which “is a modified version of the flow chart as shown in FIG. 2,” has been amended to be expanded and conform to the description of Fig. 7 in the specification, page 12 lines 7 – 19, and the description of Fig. 2 beginning at page 6, lines 20. Approval of the drawings with the replacement sheets, and withdrawal of the objection are respectfully requested.

The examiner objects to the abstract and the specification for the various informalities detailed in the office action. The abstract and specification have been carefully reviewed and revised to correct these informalities and any other cosmetic defect noted therein. Also, the contents of claims 10 – 12 have been added to the specification, page 3, so that support is provided for these claims. Reconsideration and withdrawal of the objection is respectfully requested.

The examiner objected to the claims, on the basis that dependent claim 12 was separated from claim 2, from which claim 12 depends, and because the intervening claims are not dependent from claim 2. Claims 2 and 12 have been canceled, and re-written (as amended) as new claims 18 - 19, respectively.

Claims 1 – 17 were rejected under 35 USC 112, second paragraph, as being indefinite for the reasons itemized in the office action. Each of the instances of indefiniteness (a) – (k) and (m) noted in paragraph 7 of the office action has been corrected. However, it is believed that instance (l) with respect to claim 4 is sufficiently clear, and moreover, the comment “passenger information ...” does not precisely match the wording in claim 4. In view of the amendments and the remarks, the applicants respectfully request that the rejection be reconsidered and withdrawn.

Claims 1 – 2, 4, 7 – 11 and 17 were rejected under 35 USC 102(b) as being anticipated by U.S. Patent No. 6,345,110, Niyogi et al. (“Niyogi”). Claims 3, 5 – 6 and 12 were rejected under 35 USC 103(a) as being unpatentable over Niyogi in view of U.S. Patent No. 6,662,093, Farmer (“Farmer”). Claims 13 and 15 were rejected under 35 USC 103(a) as being unpatentable over Niyogi in view of U.S. Patent No. 6,116,639, Breed et al. (“Breed”). Claim 16 was rejected under 35 USC 103(a) as being unpatentable over Niyogi in view of U.S. Patent No. 6,781,705, Waslowski et al. (“Waslowski”).

Independent claim 1 has been amended, and recites, in combination, for example, that the extracting means “detects a head ellipse from a passenger’s head image outputted from said imaging means; stores the detected head ellipse in a form of parameters defining the head ellipse; judges whether the head ellipse stored in the form of the parameters is almost the same as one of said reference images; decides the passenger’s information responsive to one of the reference images when the head ellipse of the passenger’s head image is almost the same as the one of the reference images.” Support for this amendment is located in the specification, for example, page 7, lines 9 – 12.

Insofar as the rejection can be applied to the claims as amended, the rejection is respectfully traversed for reasons including the following, which are provided by way of example.

Without conceding that Niyogi discloses any feature of the present invention, Niyogi is directed to identifying images in a system 1 including a camera 20, CPU 10, a memory 30 and an output 40. According to Niyogi, the camera 20 provides a series of sample images over time. Each image is processed to determine a pose. The memory 30 includes image data for images obtained from a training set and an output pose corresponding to each image in the training set.

The CPU 20 includes an output 40 for indicating the pose determined for the inputted image. (E.g., column 3, lines 9 – 15.) The training set is obtained by taking pictures of various objects at different poses. (E.g., column 3, lines 31 – 33.) Therefore, a pose of the inputted image is determined by comparing the inputted image with images obtained from a training set.

The office action asserts that Niyogi discloses the invention as claimed. To the contrary, Niyogi fails to teach or suggest the invention, as presently claimed, when the claims are considered as a whole. Niyogi fails to teach or suggest, for example, detecting a head ellipse from the inputted image. (Cf., e.g., claim 1.) Moreover, Niyogi fails to teach or suggest that the inputted image is stored in the form of parameters defining a head ellipse.

In independent claim 1, as compared with Niyogi, a head ellipse of a passenger is detected, and the detected head ellipse is stored in a form of parameters defining a head ellipse of the passenger. Thereafter, it is judged whether the detected head ellipse is almost the same as one of the reference images. Because the detected head ellipse is defined by parameters, the passenger's information can be correctly decided by comparing the head ellipse of the passenger's head image to each of the reference images.

It should be noted that independent claim 1 includes means plus function language, e.g., the "extracting means." With respect to means plus function language, the Court of Appeals for the Federal Circuit, in its *en banc* decision *In re Donaldson Co.*, 16 F.3d 1189, 29 USPQ2d 1845 (Fed. Cir. 1994), held that:

Per our holding, the "broadest reasonable interpretation" that an examiner may give means-plus-function language is that statutorily mandated in paragraph six. Accordingly, the PTO may not disregard the structure disclosed in the specification corresponding to such language when rendering a patentability determination. (Emphasis added.)

Therefore, a "means or step plus function" limitation should be interpreted in a manner consistent with the specification disclosure. The Federal Circuit explained the two step analysis involved in construing means-plus-function limitations in *Golight Inc. v. Wal-Mart Stores Inc.*, 355 F.3d 1327, 1333-34, 69 USPQ2d 1481, 1486 (Fed. Cir. 2004): "The first step in construing a means-plus-function claim limitation is to define the particular function of the claim limitation. ... The next step in construing a means-plus-function claim limitation is to look to the specification and identify the corresponding structure for that function." (*Id.*; citations omitted.) It is not apparent here that the examiner has performed either of the steps. Moreover, it is believed that Niyogi fails to teach or suggest the extracting means as recited.

Niyogi fails to teach or suggest, for example, these elements recited in independent claim 1. It is respectfully submitted therefore that claim 1 is patentable over Niyogi.

For at least these reasons, the combination of features recited in independent claim 1, when interpreted as a whole, is submitted to patentably distinguish over the prior art. In addition, Niyogi clearly fails to show other claimed features as well.

Furthermore, Farmer, Breed and/or Waslowski fail to remedy the deficiencies of Niyogi. It is therefore respectfully submitted that the claims are patentable over Farmer, Breed and Waslowski, alone or in combination with Niyogi or the other references.

With respect to the rejected dependent claims, applicant respectfully submits that these claims are allowable not only by virtue of their dependency from independent claim 1, but also because of additional features they recite in combination.

New claims 18 – 32 have been added to further define the invention, and are believed to be patentable for reasons including these set out above. Support for new claims 18 – 19 and 32 is discussed above. Support for claim 20 is located in the specification as filed, for example page

7, lines 9 – 12. Support for claim 21 is located in the specification as filed, for example FIG. 7 and page 12. Support for claims 22 – 31 is located in the specification as filed, for example, claims 3 – 7 and 13 – 17.

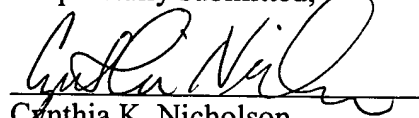
Applicants respectfully submit that, as described above, the cited prior art does not show or suggest the combination of features recited in the claims. Applicants do not concede that the cited prior art shown any of the elements recited in the claims. However, applicants have provided specific examples of elements in the claims that are clearly not present in the cited prior art.

Applicants strongly emphasize that one reviewing the prosecution history should not interpret any of the examples applicant has described herein in connection with distinguishing over the prior art as limiting to those specific features in isolation. Rather, for the sake of simplicity, applicants have provided examples of why the claims described above are distinguishable over the cited prior art.

In view of the foregoing, the applicants respectfully submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

Please charge any unforeseen fees that may be due to Deposit Account No. 50-1147.

Respectfully submitted,



Cynthia K. Nicholson

Reg. No. 36,880

Posz Law Group, PLC
12040 South Lakes Drive, Suite 101
Reston, VA 20191
Phone 703-707-9110
Fax 703-707-9112
Customer No. 23400